

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1.-5. (cancelled)

6. (currently amended) A method of identifying an agent ~~having cellular anti-proliferation activity~~ that activates TSA-responsive Sp3-mediated transcription, the method comprising:

providing a cell having (a) a first vector comprising a first regulatory sequence operably linked to a nucleic acid sequence encoding a fusion protein, wherein the fusion protein comprises (i) a fragment of Sp3 or a fragment thereof (1) having transcriptional activation activity, (2) comprising at least one glutamine rich region of a TSA responsive domain of Sp3, and (3) lacking at least part of the zinc finger region of Sp3, and (ii) a DNA binding domain of a heterologous protein; and (b) a second vector comprising a target binding sequence for the DNA binding domain of the fusion protein operably linked to a reporter gene;

contacting the cell with a test agent; and

selecting a test agent that increases the expression of the reporter gene compared to a control.

7. (Previously presented) The method of claim 6, wherein the heterologous protein is not endogenous to the cell.

8. (Previously presented) The method of claim 7, wherein the heterologous protein is GAL4, LexA or tetracycline repressor.

9. (Previously presented) The method of claim 6, wherein the reporter gene encodes luciferase, chloramphenicol acetyltransferase, beta-galactosidase, human growth hormone or secreted alkaline phosphatase.

10. (Previously presented) The method of claim 8, wherein the reporter gene encodes luciferase, chloramphenicol acetyltransferase, beta-galactosidase, human growth hormone or secreted alkaline phosphatase.

11. (Previously presented) The method of claim 6, wherein the fusion protein comprises at least one glutamine-rich region of Sp3.

12. (Previously presented) The method of claim 8, wherein the fusion protein comprises at least one glutamine-rich region of Sp3.

13. (Previously presented) The method of claim 9, wherein the fusion protein comprises at least one glutamine-rich region of Sp3.

14. (Previously presented) The method of claim 6, wherein the second vector comprises a second regulatory sequence operably linked to the reporter gene.

15. (Previously presented) The method of claim 8, wherein the second vector comprises a second regulatory sequence operably linked to the reporter gene.

16. (Previously presented) The method of claim 9, wherein the second vector comprises a second regulatory sequence operably linked to the reporter gene.

17. (Previously presented) The method of claim 6, wherein the test agent is a low molecular weight compound.

18. (Withdrawn) The method of claim 6, further comprising evaluating the selected test agent for anti-cancer activity.

19. (Withdrawn)
The method of claim 18, wherein the test agent is evaluated for anti-cancer activity *in vitro*.

20. (Withdrawn) The method of claim 18, wherein the test agent is evaluated for anti-cancer activity *in vivo*.

21. (Withdrawn) An anticancer agent comprising a compound that increases the transcriptional activity mediated by Sp3 and a pharmaceutical carrier, wherein the anticancer agent is not TSA, trapoxin, or sodium butyrate.

22. (Withdrawn) An anticancer agent identified by the method of claim 6, wherein the anticancer agent is not TSA, trapoxin, or sodium butyrate.

23. (Withdrawn) An anticancer agent identified by the method of claim 8, wherein the anticancer agent is not TSA, trapoxin, or sodium butyrate.

24. (Withdrawn) An anticancer agent identified by the method of claim 9, wherein the anticancer agent is not TSA, trapoxin, or sodium butyrate.

25. (New) The method of claim 6, further comprising evaluating the selected test agent for cellular anti-proliferative activity.

26. (New) The method of claim 6, further comprising identifying the selected test agent as having potential cellular anti-proliferative activity.

27. (New) The method of claim 6, wherein the Sp3 is human Sp3.

28. (New) The method of claim 6, wherein the fusion protein comprises at least one of the two glutamine-rich regions comprising amino acids 10-123 or 223-358 of human Sp3.

29. (New) The method of claim 6, wherein the fusion protein lacks at least part of a Zinc finger region selected from the group consisting of amino acids 495-517, 525-547, and 555-575 of human Sp3.